



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,031	12/08/2005	Sun Whan Kim	MR2685-196	8316
4586	7590	01/24/2008		
ROSENBERG, KLEIN & LEE 3458 ELLICOTT CENTER DRIVE-SUITE 101 ELLICOTT CITY, MD 21043			EXAMINER ABRAHAM, TANIA	
			ART UNIT	PAPER NUMBER
			3636	
			MAIL DATE	DELIVERY MODE
			01/24/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/560,031	Applicant(s) KIM, SUN WHAN	
	Examiner Tania Abraham	Art Unit 3636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☒ Claim(s) 1-10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "91" (figure 7). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following: on page 7, line 16 should read --there is a third--; on page 11, line 25 should read --plates 75 as--; and on page 13, line 14, the comma at the end of the sentence should be replaced with a period. The specification should be proofread for any other idiomatic and/or grammatical errors. Moreover, the detailed description describes the guidance grooves as having narrow and wide ends; however, the drawings show that it is not the grooves that have narrow

Art Unit: 3636

and wide ends, but the cylindrical gap controller as a whole. The grooves shown have a constant width and are located parallel to the controller sides, which diverge from one tapered and narrow end to a second wider end.

Appropriate correction is required.

Claim Objections

3. Claim 1 is objected to because of the following:

- The recitation in page lines 10 and 11 describe the guidance grooves as having a narrow end and a wide end; however, the drawings show the area of the gap controller that is between the grooves, and the gap controller as a whole, as having a narrow end and a wide end. Appropriate correction is required.
- In page line 16, "at the corresponding" should read --at corresponding--.
- The limitation "axial direction", in page line 19, does not sufficiently describe the direction in which the plates move. The claim should describe how the plates move (e.g., translational, rotational, etc.) and in which direction with respect to an element of the chair (e.g., backward/forward, lateral, etc.). Appropriate correction is required.
- In page line 20, "pair of the seats" should read --pair of seats--.
- In page line 22, "a pair of connectors" should read --the pair of connectors--.

4. Claim 2 is objected to because of the following: in line 3 of this claim, "the above moving" should read --the moving--; and in line 4 of this claim, "the above shaft" should read --the shaft--. Appropriate correction is required.

5. Claim 4 is objected to because of the following informalities: the claim recites "comprises the rails" in its second line; however, this recitation is the first presentation of this limitation. Appropriate correction is required.
6. Claim 6 is objected to because of the following:
 - The claim recites "units located the pair of seats". This recitation is missing a term to properly describe where the units are located (e.g., near, away, adjacent, on, under, etc.) Appropriate correction is required.
 - In line 3 of this claim, "the above moving" should read --the moving--.
7. Claim 8 is objected to because of the following:
 - The claim recites "two pairs of moving plates" twice, in lines 2 and 4. Line 2 should read --two pairs of seats--. Appropriate correction is required.
 - Line 5 should read --move independently--.
 - In line 11, "having a pair" should read --each having a pair--.
 - The recitation in lines 11 and 12 describe the pair of guidance grooves as having a narrow end and a wide end; however, the drawings show the area of each gap controller that is between the grooves, and the gap controller as a whole, as having a narrow end and a wide end. Appropriate correction is required.
 - In line 17, "at the positions" should read --at positions--.
 - Line 20 should read --move along the base in--.
 - The limitation "axial direction", in line 21, does not sufficiently describe the direction in which the plates move. The claim should describe how the plates

Art Unit: 3636

move (e.g., translational, rotational, etc.) and in which direction with respect to an element of the chair (e.g., backward/forward, lateral, etc.). Appropriate correction is required.

8. Claim 9 is objected to because of the following informalities: in line 4 of this claim, "above moving" should read --moving--; and in line 5 of this claim, "above shaft" should read --shaft--. Appropriate correction is required.

9. Claim 10 is objected to because of the following: since the claim recites "wherein each" in line 1, line 2 should read --a pair of roller grooves--. Appropriate correction is required.

Allowable Subject Matter

10. Claims 1-10 would be allowable if rewritten or amended to overcome the claim objections set forth in this Office action.

11. The following is an examiner's statement of reasons for allowance: the prior art of record do not show or suggest, either singly or combined, all the element of the claimed invention; specifically, a seat having a variable gap comprised of a cylindrical gap controller attached in the middle of a rotating adjustment shaft, having a pair of guidance grooves that are coupled to moving plates via a pair of connectors.

References Carlton, Su, and Kojima show similar structure claimed, with the exception of the above elements and their structural relationship. Carlton shows a pair of seats 29, a pair of moving plates 28, a base 25, a shaft 17, a cylindrical gap controller

Art Unit: 3636

16, driving means 17a, a pair of connectors 15 coupling the gap controller and the plates, and guiding means 26. Carlton, or the prior art, does not show a teaching or suggest a reason for modifying Carlton's gap controller with a pair of guidance grooves; nor would it have been obvious to a person of ordinary skill in the art to make such a modification.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. This application is in condition for allowance except for the following formal matters:

Claims 1, 2, 4, 6, and 8-10 are objected to, see detailed claim objections above; the drawings and specification are also objected to, see above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 25 USPQ 74, 453 O.G. 213, (Comm'r Pat. 1935).

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Art Unit: 3636

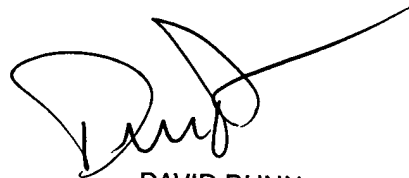
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tania Abraham whose telephone number is 571-272-2635. The examiner can normally be reached on Monday - Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Dunn can be reached on 571-272-6670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tania Abraham
January 18, 2008



DAVID DUNN
SUPERVISORY PATENT EXAMINER